CONTENTS

No. 1—MARCH

PAGE

STASZEWSKI, J.—Cancer in Poland in 1959 1

STOCKS, P. AND DAVIES, R. I.—Zinc and Copper Content of Soils Associated with the Incidence of Cancer of the Stomach and other Organs 14

CLIFFORD, PETER and BEECHER, J. L.—Nasopharyngeal Cancer in Kenya . . 25

WHITTAKER, L. R.—Nasopharyngeal Cancer in Kenya 44

LINSELL, C. A.—Nasopharyngeal Cancer in Kenya 49

HOU-JENSEN, K.—On the Occurrence of Post Nasal Space Tumours in Kenya . 58

GATUMBI, I. AND LINSELL, C. A.—Nasopharyngeal Angiofibromas in Kenya . 69

HARRISON, D. F. N. AND TUCKER, W. N.—The Role of Chemotherapy in Advanced Cancer of the Head and Neck. A Review of Eighty Cases 74

HOFFBRAND, B. I.—Haemolytic Anaemia in Hodgkin's Disease Associated with Immunoglobulin Deficiencies 98

CHAN, D. P. S., HO, J. H. C. AND WOO, A. W. T.—A Report of the Systemic Use of 5-Fluorouracil in the Treatment of Chinese Cancer Patients 102

TAL, C., DISHON, T. and GROSS, J.—The Agglutination of Tumour Cells *In Vitro* by Sera from Tumour Patients and Pregnant Women 111

BALL, J. K., HUH, T. Y. AND MCCARTER, J. A.—On the Statistical Distribution of Epidermal Papillomata in Mice 120

HEATH, J. C. AND DANIEL, MARY R.—The Production of Malignant Tumours by Cadmium in the Rat 124

GUTHRIE, J.—Observations on the Zinc Induced Testicular Teratomas of Fowl . 130

BLACK, J. W.—The Localisation of Metastatic Brown-Pearce Carcinoma in Granulation Tissue 143

HARTVEIT, F.—The Rôle of the Large Peritoneal Macrophage in Tumour Homograft Rejection 146

LAYDE, J. P. and BASERGA, R.—The Effect of Nitrogen Mustard on the Life Cycle of Ehrlich Ascites Tumour Cells *In Vivo* 150

ALFRED, L. J., GLOBERSON, A., BERWALD, Y. and PREHN, R. T.—Differential Toxicity Response of Normal and Neoplastic Cells *In Vitro* to 3,4-Benzopyrene and 3-Methylcholanthrene 159

DE PIROSKY, ROSA RABINOVICH AND OISGOLD, SARAH R.—The Sequence of Mouse Serum Protein Changes During the Progressing Growth of a Spontaneous Mammary Tumour and of the Same Tumour Grafted in Isologous System. 165

REID, E.—Azo-Dye Carcinogenesis: Ribonucleic Acid and Other Constituents of Cytoplasmic Particles 172

REID, E.—Azo-Dye Carcinogenesis: Enzymes Concerned in Uridine Nucleotide Metabolism 179

CALCUTT, G.—The Sulphydryl Groups of Some Normal Tissues and Some Animal Tumours 197

Survey of Papers i

No. 2—JUNE

PAGE

COTCHIN, E.—Spontaneous Uterine Cancer in Animals 209

ROWE, N. H. AND JOHNSON, C. M.—A Search for the Burkitt Lymphoma in Tropical Central America 228

KAY, J. M. AND SOUTHWOOD, W. F. W.—Paget's Disease of the Vulva Associated with an Unusual Bladder Tumour 233

SCOTT BROWN, I., ROSS W. M. AND WALDER, D. N.—The Combined Thiotepa and Testosterone Treatment of Cancer of the Breast 238

CONOLLY, M. E. AND ELLIS, H.—Anuria Due to Uric Acid Crystalluria: An Unusual Complication of Therapy in the Reticuloses 247

WHITELEY, H. J. AND HORTON, DAPHNE L.—A Spontaneous Transplantable Ovarian Tumour of the CBA Mouse 252

GUTHRIE, J.—Histological Effects of Intra-Testicular Injections of Cadmium Chloride in Domestic Fowl 255

HEATH, J. C. AND DANIEL, MARY R.—The Production of Malignant Tumours by Nickel in the Rat 261

BOYLAND, E., ROE, F. J. C., GORROD, J. W. AND MITCHLEY, B. C. V.—The Carcinogenicity of Nitrosoanabasine, a Possible Constituent of Tobacco Smoke 265

HOCH-LIGETI, CORNELIA, LOBL, L. T. AND ARVIN, JOAN M.—Effect of Nitrosamine Derivatives on Enzyme Concentrations in Rat Organs During Carcinogenesis 271

BALDWIN, R. W.—Modification of Cell Antigens During Aminoazo Dye Carcinogenesis in Rat Liver 285

HAWTREY, A. O., SCHOEMAN, C. A., DIJKSTRA, J., SCHIRREN, VERA AND NOURSE, L.—The Effect of Short-Term Feeding Experiments with 3′-Methyl-4-Dimethylaminoazobenzene on Rat-Liver Mitochondrial Function . . 299

RANADIVE, KAMAL J. AND CHAPEKAR, T. N.—*In Vitro* Studies on Mouse Mammary Gland Response to Hormonal Treatment 308

WALTERS, MARGARET A. AND ROE, F. J. C.—The Effect of Dietary Casein on the Induction of Lung Tumours by the Injection of 9,10-Dimethyl-1,2-Benzanthracene (DMBA) into Newborn Mice 312

LEMONDE, P.—Effect of Pregnancy on Spontaneous Leukaemia in Mice . . 317

FALCONER, D. S. AND BLOOM, JOYCE L.—Changes in Susceptibility to Urethane-Induced Lung Tumours Produced by Selective Breeding in Mice . . 322

POWELL, A. K.—The Effects of Buffered Solutions of Dextran Upon HeLa Carcinoma Cells 333

KHATTAB, A. A. AND BARON, D. N.—Differential 17-Oxosteroid Excretion in Women with Cancer of the Breast Following Hypophysectomy . . 342

EASTY, G. C., YARNELL, M. M. AND ANDREWS, R. D.—The Uptake of Proteins by Normal and Tumour Cells *In Vitro* 354

EASTY, G. C.—The Uptake of Fluorescent Labelled Proteins by Normal and Tumour Tissues *In Vivo* 368

ALLEN, INGRID V.—The Relationship of Fever to Tumour Necrosis in the Rat . 378

JUNE—*cont.*

PAGE

ALIFANO, A., PAPA, S., TANCREDI, F., ELICIO, M. A. AND QUAGLIARIELLO, E.—Tryptophan-Nicotinic Acid Metabolism in Patients with Tumours of the Bladder and Kidney 386

KEMP, J. H. AND JOHNSTONE, J. M.—Evaluation of Serum Trypsin Inhibitor Activity in the Detection of Malignant Disease 390

WITZ, I., HERMANN, G., PIKOVSKI, M. AND GROSS, J.—The Antigenic Composition of Tumours, Sera and Urines of Tumour-Bearing Mice and the Partial Purification of Two Antigens Present in Increased Amounts 397

OWEN, L. N.—The Treatment of Malignant Tumours of Bone in the Dog by Intra-Arterial Injection or Perfusion of Epodyl (Triethyleneglycol Diglycidyl Ether) 407

Survey of Papers i

No. 3—SEPTEMBER

BOYD, J. T. AND DOLL, R.—A Study of the Aetiology of Carcinoma of the Cervix Uteri 419

CLIFFORD, PETER, CLIFT, R. A., KHAN, A. G. AND TIMMIS, G. M.—Dimethyl Myleran Therapy Combined with Abdominal Aortic Occlusion . . . 435

SCHROEDER, J. M., ANSFIELD, F. J., CURRERI, A. R. AND LEPAGE, G. A.—Toxicity and Clinical Trial of Azaserine and 6-Thioguanine in Advanced Solid Malignant Neoplasms 449

FABRIKANT, J. I., DICKSON, R. J. AND FETTER, B. F.—Mechanisms of Radiation Carcinogenesis at the Clinical Level 459

MIRVISH, S. S.—Bile Acids and Other Lipids in the Gall-Bladder Biles of Africans with Primary Cancer of the Liver 478

JÓZSA, LADISLAS, AND PINTÉR, ALEXANDER—Separation of the Origin of Ascites and Hydrothorax Fluids on the Basis of their Mucopolysaccharide Content . 484

LAIRD, ANNA KANE—Dynamics of Tumour Growth 490

BALDWIN, R. W., CUNNINGHAM, G. J. AND PRATT, D.—Carcinogenic Action of Motor Engine Oil Additives 503

JULL, J. W.—The Effects of Hormonal Environment on Mammary Carcinogenesis in C3Hb Mice by 1,2:5,6-Dibenzanthracene 508

DANIEL, P. M. AND PRICHARD, MARJORIE M. L.—Three Types of Mammary Tumour Induced in Rats by Feeding with DMBA 513

PULLINGER, B. D. AND HEAD, M. A.—Hepatoma in Intact C3Hf Male and Virgin Female Mice and after Gonadectomy alone or subsequent Treatment with Oestrogen 521

MAYHEW, E. AND ROE, E. M. F.—Changes in the Mitotic Index of the Landschütz Ascites Tumour after Treatment with Tumour-Inhibitory or Non-Inhibitory Samples of Gum Tragacanth or with Gum Karaya 528

MAYHEW, E. AND ROE, E. M. F.—Changes in the Permeability of Landschütz Ascites Tumour Cells to Vital Stains after Treatment with Tumour-Inhibitory or modified Samples of Gum Tragacanth or with Gum Karaya . 537

SEPTEMBER—*cont.* PAGE

BIANCIFIORI, C., BUCCIARELLI, E., CLAYSON, D. B. AND SANTILLI, F. E.—Induction of Hepatomas in CBA/Cb/Se Mice by Hydrazine Sulphate and the Lack of Effect of Croton Oil on Tumour Induction in BALB/c/Cb/Se Mice . . 543

STUART, A. E. AND EL HASSAN, A. M.—Pathology of the Landschütz Ascites Tumour 551

HARTVEIT, F.—The Significance of the Blood Content of the Bergen A4 Mouse Ascites Carcinoma 557

ALFRED, L. J.—Interaction of Soluble Complexes of Tritiated 3,4-Benzopyrene and Animal Cells *In Vitro* 564

BOYLAND, E., BUSBY, E. R., DUKES, C. E., GROVER, P. L. AND MANSON, D.—Further Experiments on Implantation of Materials into the Urinary Bladder of Mice 575

THIERY, M. AND WILLIGHAGEN, R. G. J.—Enzyme Histochemistry of Induced and Transplanted Squamous Cell Carcinoma of the Uterine Cervix . . 582

KHALAFALLAH, A. S. AND ABUL-FADL, M. A. M.—Studies on the Urinary Excretion of Certain Tryptophan Metabolites before and after Tryptophan Loading Dose in Bilharziasis, Bilharzial Bladder Cancer and Certain Other Types of Malignancies in Egypt 592

BOYD, D. H. A. AND FLETCHER, MARGARET J.—The Effect of Treatment on the Intravenous Glucose Tolerance Test in Malignant Disease . . . 605

DIJKSTRA, J.—The Contents of Trichloroacetic Acid-soluble Sulphydryl Compounds and Ascorbic Acid in the Liver of Rats Fed Aminoazo Dyes : the Effect of a Single Large Dose of Dye 608

DIJKSTRA, J. AND PEPLER, W. J.—The Contents of Trichloroacetic Acid-soluble Sulphydryl Compounds and Ascorbic Acid in the Liver of Rats Fed Aminoazo Dyes : the Effect of Continuous Feeding of Dyes in the Diet . 618

Survey of Papers . . . . . (i)

No. 4.—DECEMBER

DODGE, O. G.—Bone Tumours in Uganda Africans 627

CRITCHLEY, E. M. R.—Hypophysectomy for Metastatic Carcinoma of the Breast. Some Electroencephalographic and Clinical Observations . . . 634

EL-GAZAYERLI, MOHAMED M. AND ABDEL-AZIZ, A.-S.—Salivary Gland Tumours in Egypt and Non-Western Countries 649

LIPSCHUTZ, A., PANASEVICH, VERA I. AND CERISOLA, HUMBERTO.—Comparative Tumorigenesis in Intrasplenic, Intrarenal and Intrahepatic Ovarian Grafts 655

HADDOW, A., ROE, F. J. C., DUKES, C. E. AND MITCHLEY, B. C. V.—Cadmium Neoplasia : Sarcomata at the Site of Injection of Cadmium Sulphate in Rats and Mice 667

ROE, F. J. C., DUKES, C. E., CAMERON, K. M., PUGH, R. C. B. AND MITCHLEY, B. C. V.—Cadmium Neoplasia : Testicular Atrophy and Leydig Cell Hyperplasia and Neoplasia in Rats and Mice Following the Subcutaneous Injection of Cadmium Salts 674

BARTON, A. A.—An Electron Microscope Study of Human Breast Cells in Fibroadenosis and Carcinoma 682

DECEMBER—*cont.* PAGE

BARONI, C.—On the Relationship of Mast Cells to Various Soft Tissue Tumours 686

GOSWAMI, P. K.—Local Subcutaneous Eosinophil Leucocytic Reaction to the Inoculation of Isolated Normal or Tumour Cells in Mice 692

COOPER, E. H. AND MILTON, J. D.—The Incorporation and Degradation of Pyrimidine DNA Precursors by Human Leucocytes 701

HARTVEIT, F.—The Complement Content of the Serum of Normal as Opposed to Tumour Bearing Mice 714

HARTVEIT, F.—The Lytic Action of Fresh Human Serum on Bergen A4 Ascites Carcinoma Cells 721

HARTVEIT, F.—The Demonstration of an Inhibitor of Oncolysis in the Ascitic Fluid from the Ehrlich Ascites Carcinoma 726

WHEATLEY, D. N. AND AMBROSE, E. J.—Tumour Cell Invasion from Transplantable Ascites Tumours into Host Tissues 730

WHEATLEY, D. N. AND EASTY, G. C.—The Growth and Infiltration of Ehrlich's Ascites Tumour in Mice with Reduced Immunological Responses . . 743

BUTLER, W. H.—Acute Toxicity of Aflatoxin B_1 in Rats 756

HERROLD, KATHERINE MCD.—Effect of Route of Administration on the Carcinogenic Action of Diethylnitrosamine (*N*-Nitrosodiethylamine) 763

FARE, G.—Protein Binding During Mouse Skin Carcinogenesis by 9,10-Dimethyl-1,2-Benzanthracene. The Effect of Copper Acetate and the Non-random Distribution of Induction Times Among Mice Given Identical Treatment 768

GOODALL, C. M.—Failure of Copper to Inhibit Carcinogenesis by 2-Aminofluorene 777

FARE, G.—The Protective Effects of Beef and Yeast Extracts and Copper Acetate in the Diet Against Rat Liver Carcinogenesis by 4-Dimethylaminoazobenzene 782

O'SULLIVAN, M. AIDEEN AND KIRBY, K. S.—Studies on Nucleic Acids During Carcinogenesis 792

ROE, F. J. C., HADDOW, A., DUKES, C. E. AND MITCHLEY, B. C. V.—Iron-Dextran Carcinogenesis in Rats: Effect of Distributing Injected Material Between One, Two, Four, or Six Sites 801

HARRAP, K. R. AND SPEED, D. E. M.—Some Biochemical Aspects of Leukaemias: The Appearance of a Soluble Disulphide in the Blood in Chronic Granulocytic Leukaemia 809

Survey of Papers i

Index 819